AMENDMENTS TO THE CLAIMS

Please add or amend the claims as follows and cancel without prejudice the claims marked as cancelled:

72. (Cancelled)

73. (Currently Amended) The method according to claim [[72]] 88 comprising imaging the interaction chamber with an optical system.

74. (Currently Amended) The method according to claim [[72]] 88 comprising imaging the optical changes in the interaction chamber.

75. (Currently Amended) The method according to claim [[72]] 88 comprising illuminating said interaction chamber wherein at least a portion of the interaction chamber is transparent in a wavelength of illumination.

76. (Currently Amended) The method according to claim [[72]] 88, comprising transmitting images to an external receiver.

77. (Currently Amended) The method according to claim [[72]] 88, comprising pumping the endo-luminal sample into the interaction chamber.

78. (New) An in-vivo imaging device for determining an in vivo condition, the imaging device comprising:

an interaction chamber comprising first and second openings, wherein the first opening is to allow an endo-luminal sample to enter and the second opening is to discharge the endo-luminal sample;

an imager for capturing an image of at least the interaction chamber, wherein the interaction chamber and the imager are positioned behind an optical window.

79. (New) The in-vivo imaging device according to claim 78 wherein the interaction chamber includes a capillary.

80. (New) The in-vivo imaging device according to claim 78 wherein the interaction chamber is etched into a slab of glass.

81. (New) The in-vivo imaging device according to claim 78 wherein the interaction chamber includes an indicator configured to react with the endo-luminal sample.

82. (New) The in-vivo imaging device according to claim 81, comprising first and second membranes configured to restrict the indicator to the interaction chamber.

83. (New) The in-vivo imaging device according to claim 78, comprising first and second membranes configured to selectively enable passage of the endo-luminal sample.

84. (New) The in-vivo imaging device according to claim 78, comprising an optical system.

85. (New) The in-vivo imaging device according to claim 78 comprising a transmitter to transmit the captured image to an external receiving system.

86. (New) The in-vivo imaging device according to claim 78, wherein the imager is configured for capturing an image of the interaction chamber and a gastrointestinal tract wall.

87. (New) The in-vivo imaging device according to claim 78 comprising an illumination source configured to illuminate the interaction chamber.

88. (New) A method for determining body lumen conditions in-vivo, the method comprising:
allowing to enter through a first opening of an in-vivo interaction chamber, a first endo-luminal sample, the interaction chamber including an indicator configured to react with at least the first endo-luminal sample, the reaction resulting in an optical change;
detecting the optical change;
discharging the first endo-luminal sample through a second opening of the interaction chamber; and
replacing the first sample in the interaction chamber with a new sample.

89. (New) The method according to claim 88 comprising capturing an image of a gastrointestinal wall.